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FEDERAL RESERVE BANK OF BOSTON™

"Trends and Transitory Shocks"

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The Money Marketeers of New York University

New York, New York
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Good evening. It is a pleasure to be back in New York. I'd like to thank the Money Marketeers for inviting me to share my perspectives this evening. At the outset, let me note as I always do that the views I express are my own, not necessarily those of my colleagues at the Federal Reserve's Board of Governors or on the Federal Open Market Committee (the FOMC).

After last week's FOMC meeting, the Committee announced that it would begin to shrink the Federal Reserve's balance sheet in October. In my view, this was a well-communicated announcement designed to minimize any disruption – which was advisable, given that there is no precedent for the process of shrinking the central bank's balance sheet, at least at this magnitude. The announcement went smoothly, and now with the balance sheet essentially on "automatic pilot," Federal Reserve policymakers can resume using short-term interest rates as the primary tool for monetary policy.

As policymakers think about appropriate policy, it should be noted that discerning the underlying trends in unemployment and inflation – looking through transitory effects – is likely to be quite difficult in coming months. The impact of Hurricanes Harvey, Irma, and Maria will significantly cloud the interpretation of the economic data. The challenge will be in trying to differentiate the temporary — the pause and rebound in activity resulting from the storms and subsequent rebuilding — from the ongoing trend. Thus, it may be difficult to be fully "data dependent" in the near-term. This difficulty is compounded by the fact that the Federal Reserve's dual mandate indicators – employment and inflation – are sending somewhat conflicting signals of late: labor markets have continued to improve, yet inflation has slipped down a notch this year.

For much of the period of recovery from the financial crisis and last recession, inflation was well below the Federal Reserve's 2 percent target, and the unemployment rate was well above the estimated long-run sustainable rate. Today, while inflation is still undershooting the Fed's 2 percent target, the unemployment rate has declined so much that it is actually below what most FOMC participants see as the sustainable level of the unemployment rate (and, as I will note in a moment, it is likely to fall further).

When the central bank's dual mandate is "dueling," how should policymakers resolve the conflicting signals? Monetary policy must be forward looking, so a key consideration involves the likelihood that the mandate "misses" will persist. Peering into the future is always fraught with uncertainty; but even so, it may be instructive to consider where most private sector economists and policymakers believe that inflation and unemployment are headed over the medium-term. Do they see recent inflation weakness as temporary, or a sign of things to come?

As I will discuss today, the forecasts of both Federal Reserve policymakers (in the Summary of Economic Projections or SEP[1]) and private forecasters agree that by the end of next year, inflation is expected to be close to target while the unemployment rate will continue to fall – and as a result, will move further below most estimates of a sustainable unemployment rate.

I share this forecast, and the assessment that unemployment will be materially below most policymakers' estimates of the rate consistent with full employment. The likelihood of this outcome poses risks – specifically that an overheated economy will lead to price or asset-price inflation, risking the sustainability of the recovery. The last time we had unemployment rates trending toward 4 percent (in the late 1990s), the personal consumption expenditures (PCE) measure of total inflation and asset prices had begun to rise, followed shortly thereafter by an economic downturn and a significant revaluation in many asset prices. Thus, in my view, appropriate risk mitigation would argue for continued gradual removal of monetary accommodation, even though we are currently below the inflation target.

Are Recent Low *Inflation* Rates Likely to be Transitory?

Figure 1 provides the total and core PCE inflation measures over the past three years. While the total PCE inflation rate briefly exceeded the Fed's 2 percent inflation target early this year, it has since fallen, and the total PCE inflation rate – the percent change in the index from a year ago – is currently 1.4 percent.

In part, the decline is due to some idiosyncratic individual price decreases. Reductions in wireless phone plan prices and lower prescription drug prices both resulted in declines in the PCE inflation rate this spring. And – as a matter of arithmetic – these drops will continue to depress 12-month inflation rates until next spring. However, the effects of the hurricanes will likely cause temporary *increases* in reported inflation over the next several months. The hurricanes have disrupted refinery and distribution facilities, temporarily elevating gasoline prices, for example. Of course, as this capacity comes back on line, gasoline prices will likely fall back to their pre-hurricane levels, imposing another downward imprint on inflation. The point is that additional "noise" in the data will make it a bit more difficult in the near term to determine the underlying trend in inflation, at a time when policymakers are eager to distinguish the trend from the noise given the recent low readings.

Figure 2 provides the median forecast for PCE inflation at yearend 2018 from the past five SEP reports. The central tendency is defined as the range of forecasts excluding the three highest and three lowest forecasts. The median forecast, which had been quite constant at 2 percent, has edged down in the most recent SEP. The fact that the median has dipped below 2 percent and the bottom of the shaded area now extends a bit lower suggests that some FOMC participants believe we will still remain below the target at the end of 2018. Nonetheless, I would point out that even the lower boundary of the central tendency, at 1.8 percent, is still relatively close to the 2 percent target.

Figure 3 provides the median forecast and the central tendency for *core* PCE inflation. The overall forecast for core PCE inflation is generally consistent with that of total inflation.

Figure 4 turns from Fed policymakers to those private forecasters taking part in the Blue Chip consensus forecast. It provides the consensus (average) forecast and the average of the 10 highest and 10 lowest forecasts for PCE inflation for Blue Chip participants.[2] The private forecasts are generally consistent with the SEP, but the chart shows that, unlike the FOMC participants, at least some private forecasters believe inflation will be above the Federal Reserve's 2 percent inflation target by the end of next year.

Overall, there is a broad consistency between FOMC participants' forecasts and private-sector forecasts. The current low inflation readings are viewed as transitory by both. While such forecasts are still of course subject to errors – possibly even significant ones – I believe policymakers should not overreact to low current inflation readings that are widely expected to be temporary.

Is the Decline in the *Unemployment Rate* Expected to be Transitory?

Figure 5 provides the recent unemployment rate and a horizontal line at 4.7 percent unemployment, marking my estimate of the long-run sustainable unemployment rate or the rate consistent with full employment. The unemployment rate fell below my 4.7 percent estimate earlier this spring, and is currently 4.4 percent. A small and temporary movement below the sustainable unemployment rate is unlikely to have much impact on wages and prices – so again, we need to explore whether low and falling unemployment should be viewed as a temporary or persistent phenomenon.

Figure 6 addresses this question by showing the median unemployment rate forecast for the end of 2018 by FOMC participants, along with the central tendency. The chart shows that both the median and the central tendency of forecasts for the unemployment rate at the end of 2018 have been declining. While the bottom of the central tendency has settled at 4 percent in the two most recent forecasts, the bottom of the full range (*including* the three lowest submissions) has declined to 3.9 percent, indicating some FOMC participants now expect the unemployment rate to decline below 4 percent, even with the modest rise in interest rates.

Figure 7 shows that the Blue Chip forecast of private forecasters is quite similar. The Blue Chip consensus forecast now has the unemployment rate falling to 4.1 percent, with the average of the lowest 10 forecasts now at 3.8 percent. The number of forecasters who believe unemployment will stabilize at 4.4 percent or rise from there is quite small. Thus, forecasters generally see the recent low readings for unemployment as *persistent*, and they envision additional declines on average. This is just the opposite of their views on inflation.

The Potential Impact of Falling Significantly Below the Full Employment Level

Figure 8 shows the actual unemployment rate, relative to FOMC participants' median estimate of the unemployment rate that is likely to be sustainable in the long run. As you can see, it is only recently that the quarterly unemployment rate has fallen below the estimates of the sustainable unemployment rate. With the unemployment rate currently at 4.4 percent and the median estimate of full employment at 4.6, we are currently 0.2 percentage points below the median of what FOMC participants believe to be sustainable – and as I have mentioned, that gap is expected to grow as unemployment falls further. Notably, this has occurred despite a gradual decline in the level that FOMC participants consider sustainable.

Figure 9 shows the SEP forecast of the unemployment rate made in September 2014,[3] along with the actual path of unemployment. The forecast assumed that the unemployment rate would fall more slowly than it actually did. While undershooting the unemployment forecast is positive when trying to *reach* full employment, such misses are less desirable if they push the economy well beyond full employment.

Figure 10 shows two measures of wage pressures – average hourly earnings, and the wages and salaries component of the employment cost index excluding incentive paid occupations. While we have only recently fallen below the SEP median estimate of sustainable unemployment, we can see that wages and salaries have been trending up over the past several years. Both measures were below 2 percent in 2012 and have gradually risen to approximately 2.5 percent more recently. An open question is how much employers and employees will alter wage and salary expectations in increasingly tight labor markets.

Figure 11 displays the Blue Chip forecast, as of this month, for growth in average hourly earnings. As mentioned earlier, the Blue Chip consensus forecast has the unemployment rate continuing to trend down. The consensus forecast anticipates that average hourly earnings growth will continue to increase, and reach 3.0 percent by the end of 2018. It is worth noting that average hourly earnings growth is currently 2.5 percent, and the average of the bottom ten forecasters is 2.7 percent for the end of 2018. This indicates that almost all the Blue Chip forecasters are expecting acceleration from current levels.

One way that wage pressures can build is if workers are willing to leave their current job for a higher-paying one. As **Figure 12** shows, very few workers were willing to leave their jobs in the wake of the Great Recession. However, as labor markets have tightened, workers are showing a greater willingness to leave their jobs in pursuit of better opportunities. With the so-called "quits rate" now close to the peak prior to the Great Recession, workers appear to be quite willing to leave their current jobs in search of higher wages.

Concluding Observations

The weakness in inflation readings appears to be transitory, but some one-time declines in individual prices will not fall out of annual averages until next spring. In contrast, the recent hurricanes will likely place some upward pressure on measured inflation over the next several months, a transitory shock in the other direction. However, the declines in the unemployment rate below the level most see as sustainable seem likely to be more long-lasting, which is one reason for my expectation that tight – and tightening further – labor markets will result in higher wages and prices over time.

Temporary fluctuations in prices may obscure the underlying trend for a little while. But monetary policy tends to act with long lags, so it is essential that central bankers do their best to look through the temporary toward the underlying trends. Those trends, as best I can see them at present, suggest to me an economy that risks pushing past what is sustainable, raising the probability of higher asset prices, or inflation well above the Federal Reserve's 2 percent target. Steps lowering the probability of such an outcome seem advisable – in other words, seem like insurance worth taking out at this time. As a result, it is my view that regular and gradual removal of monetary accommodation seems appropriate.

Thank you.

[1] The SEP is a quarterly survey of FOMC participants' forecasts for economic variables such as inflation, unemployment and real GDP growth, as well as the federal funds rate.

[2] The Blue Chip Economic Indicators generally does not include a forecast of PCE inflation. Forecasters provided PCE inflation forecasts in response to a special question.

[3] Prior to June 2015, SEP medians are not reported. Proxies for the medians are calculated from the distribution of participants' projections reported in ranges of tenths in the meeting minutes.